

Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended): A method for message filtering comprising the steps of:
extracting message body data from a message body portion of a message;
extracting message attribute data from the message, where the message attribute data is derived from the group comprising: message source, author, date, day of week, time of day, corporate affiliation, and academic affiliation;
computing a message feature vector jointly from the message body data and the message attribute data;
computing a message discriminant score using the message feature vector; and passing or withholding the message based on the discriminant score.
2. (Original): The method of claim 1, wherein a prompt is given to the user to indicate when a message is passed.
3. (Original): The method of claim 2, wherein the prompt is an audio cue.
4. (Original): The method of claim 2, wherein the prompt is a visual cue.
5. (Original): The method of claim 2, wherein the prompt is an audiovisual cue.
6. (Original): The method of claim 1, wherein the message is displayed to the user when passing.
7. (Canceled)
8. (Currently amended): A method for message filtering comprising the steps of:
extracting message body data from a message body portion of a message;

extracting message attribute data from the message;
computing a message feature vector jointly from the message body data and the message attribute data;
computing user textual features from the user environment;
computing user attribute features from the user environment;
computing a user feature vector jointly from the user textual features and the user attribute features;
computing a message-user similarity score from the message feature vector and the user feature vector; and
passing or withholding the message based on the message-user similarity scores; and
wherein the user environment comprises documents currently in use and recently used documents.

9. (Original): The method of claim 8, wherein the message-user similarity score is computed according to the formula:

$$z_{m,u} = \frac{x_m \bullet x_u}{|x_m| \cdot |x_u|} .$$

Claims 10-16 (Canceled)

17. (Currently amended): A method for filtering messages arriving in an online system, the method comprising the steps of:

providing a plurality of incoming messages from an online system to a user;
receiving an input from the user instructing the online system to act upon an incoming message;
labeling each incoming message in response to the instruction from the user to act upon the incoming message to create an online labeled data set; and
training a classifier with the online labeled data set; and
wherein the classifier is retrained at predetermined intervals with current online data sets, formed from recently received incoming messages, to provide a classifier for identifying messages of current interest to the user.

18. (Original): The method of claim 17, wherein the input from the user comprises an instruction to ignore the incoming message.
19. (Original): The method of claim 17, wherein the input from the user comprises an instruction to read and then delete the incoming message.
20. (Original): The method of claim 17, wherein the input from the user comprises an instruction to read and perform a further action upon the incoming message.
21. (Original): The method of claim 20, wherein the further action comprises forwarding the message.
22. (Canceled)
23. (Original): The method of claim 17, wherein the incoming messages are passed to the user by the classifier, and the classifier is retrained using the online labeled data set.
24. (Original): The method of claim 17, wherein the step of training a classifier comprises the steps of:
 - computing feature vectors from messages;
 - computing feature vectors from the user environment;
 - computing a preferentially weighted message feature vector according to the formula:

$$y = [y_i] = x_{m_i} \cdot x_{u_i}$$